

When Can You Combine (Add or Subtract) Like Terms?

Like Terms: terms that have the same variable raised to the same power

Consider these three strategies for deciding if you can combine any two or more terms. Remember, to combine the terms must be exactly the same:

SEE	EXPAND	SUBSTUTUTE	DIVIDE
Look & ask: is	$k^2 = k \cdot k$	Can you add	is $ab = ab$?
$a = a^2$?	$k^3 = k \cdot k \cdot k$	$2m^2 + 3m^4$?	Divide them:
$a = b^4$?	Not the same!	Is $m^2 = m^4$?	
$a^2 = b^2$?	You can't add them	Let's evaluate for $m = 3$:	
$ab = ba$?		$m^2 = 3 \cdot 3 = 9$	is $bac = cba$?
		$m^4 = 3 \cdot 3 \cdot 3 \cdot 3 = 81$	Divide them:
		Is $m^2 = m^4$?	
		No, so you can't add them	

